

MWI 8040.2

REVISION C

EFFECTIVE DATE: February 5, 2002

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MARSHALL WORK INSTRUCTION

ED01

CONFIGURATION CONTROL, MSFC PROGRAMS/PROJECTS

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DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		5/14/99	Document converted from MSFC P04.2-C02 to a Directive. Previous history retained in system as part of canceled or superseded ISO Document files.
Revision	A	8/16/99	<p>Changed "S&E Chief Engineer" to "Program/Project Manager or Systems Engineer" throughout the document.</p> <p>Section 1: Changed "Configuration Management" to "Configuration and Data Management."</p> <p>Section 3: Added MWI 8040.3. Changed "EL32-026" to "ED43-026."</p> <p>Section 6: Added note that Program/Project Manager may be the Systems Engineer; (1): Added "DAR."</p> <p>6.1.1.1.c, 6.1.1.2.c, and 6.1.1.3.b: Changed "Configuration Management Division" to "Configuration and Data Management Group."</p> <p>6.1.1.3.a: Changed "lead laboratory" to "Engineering Directorate lead."</p> <p>6.1.1.3.d: Changed "S&E laboratories" to "the Engineering Directorate."</p> <p>6.1.5: Deleted NOTE relative to effectivity.</p> <p>6.2.1.4.3 and 6.6.6: Changed "EL31-026" to "ED43-026."</p> <p>6.5.3.2: Changed "MSFC engineering documentation" to "ECR/DAR packages."</p> <p>6.5.4: Changed "documentation" to "ECR/DAR packages."</p>
Revision	B	5/26/00	<p>3.a & 3.f: Deleted MPD 1280.1 and MPG 1441.1 and renumbered remainder of section.</p> <p>5: Added definitions for "Configuration Control Board Directive" and "Configuration Documentation" and renumbered remainder of section.</p> <p>6.1.1: Deleted "Manager" from sentence.</p> <p>6.2.1.1: Changed to read: "Identify the need for change to the office of primary design responsibility who generates the CR, ECR, or DAR (in accordance with MWI 8040.3) and transmit to applicable program/project CCB secretariat."</p> <p>*6.2.1.3: Delete 2nd sentence.</p> <p>6.2.2.3.b: Delete "number."</p> <p>6.5.4: Change second sentence to read: "Enter information into the Integrated Configuration Management System (ICMS), . . ."</p> <p>*6.6.16.1: Revised to read: "Complete FEC installation and verification information and forward to the Project CM Secretariat"; indicated MSFC Form 2490 or using-site format is acceptable and provided mandatory data items.</p> <p>*6.6.16.2: Changed to read: "Transmit FEC information."</p> <p>*6.6.17: Changed to read: "Receive FEC</p>

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			<p>information."</p> <p>*6.7.6: Changed to read: "Generate Mod Kit documentation package including installation instructions and validation requirements.</p> <p>*6.7.6.1: Added: "w. Software requirements; deleted last two sentences in the paragraph.</p> <p>*6.7.6.2: Deleted paragraph and renumbered the following paragraph.</p> <p>*6.7.8.3: Revised to read: "Complete kit installation and verification information and forward to the Project Configuration Management Secretariat"; indicated MSFC Form 2490 or using-site format is acceptable and provided mandatory data items.</p> <p>Change paragraph 6.7.8.3.h to read: "Contractor or organization identification, name, address, and telephone number of the person responsible for the installation."</p> <p>Add paragraph 6.7.8.3.k to read: "Name, address, and telephone number of person responsible for retesting." Renumber paragraphs thereafter.</p> <p>Changed paragraph 6.7.8.3.i to read: "Name, address, . . ."</p> <p>*6.7.8.4/6.7.8.5: Deleted.</p> <p>*6.7.8.4 (renumbered): Changed to read: "Transmit mod kit installation and verification information."</p> <p>6.7.9: Changed to read: "Receive mod kit installation and verification information."</p> <p>9: Delete "MPG 1441.1, "Control of Quality Records;" and change MPG 1440.2 title to "MSFC Records Management Program."</p> <p>12: Change to read: "MWI 8040.2A dated August 16, 1999.</p> <p>* Indicates revisions in Draft 2.</p>
Revision	C	2/5/02	<p>3.0: Paragraphs a. and g. document title changes.</p> <p>6.2.1.4: Added paragraph e.</p> <p>6.5.7 Added: "provide action item status to project management."</p> <p>6.6: Revised and rewritten in its entirety.</p> <p>[Footer URL updated 01/14/2004 by Directives Manager.]</p>

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1. PURPOSE

To provide instruction for the Program/Project, System Engineering, Safety and Mission Assurance (S&MA), and Configuration and Data Management organizations for the control of configuration identification documentation for hardware, firmware, and software. This Marshall Work Instruction (MWI) provides the detailed process and responsibilities for establishing configuration baselines and controlling changes thereto. This MWI is to establish the method for implementing the configuration control of configuration identification documentation for which Marshall Space Flight Center (MSFC) has responsibility. Implementation of this MWI will satisfy the requirements of MPD 1280.1, "Marshall Management Manual (MMM)," MPG 8060.1, "Flight Systems Design/Development Control;" and MPG 8040.1, "Configuration Management, MSFC Programs/Projects."

2. APPLICABILITY

Configuration control in accordance with this MWI will be required for each program and project within the scope of MPD 1280.1.

3. APPLICABLE DOCUMENTS

- a. MPG 8060.1, "Flight Systems Design/Development Control"
- b. MPG 8040.1, "Configuration Management, MSFC Programs/Projects"
- c. MWI 8040.3, "Deviation and Waiver Process, MSFC Programs/Projects"
- d. MPG 1440.2, "MSFC Records Management Program"
- e. MSFC-MNL-1951, "Change Processing, Tracking, and Accounting System (CPTAS) User's Guide"
- f. MSFC-STD-555, "MSFC Engineering Documentation Standard"
- g. ED43-026, "Receipt Desk Operations"
- h. NPG 1441.1, "NASA Records Retention Schedules"

4. REFERENCES

None

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5. DEFINITIONS

5.1 Configuration Control. The systematic proposal, justification, evaluation, approval, or disapproval of proposed changes, and the implementation of all approved changes, in the configuration of a configuration item (CI) after establishment of the configuration baseline(s) for the CI.

5.2 Configuration Control Board (CCB). A Board composed of technical and administrative personnel who recommend approval or disapproval of proposed engineering changes to a CI's current approved configuration documentation. The Board also recommends approval or disapproval of proposed waivers and deviations from a CIs current approved configuration documentation.

5.3 Configuration Control Board Directive (CCBD), MSFC Form 2312. The Directive approved by the CCB Chair that dispositions an engineering change; specifies each action, actionee, and due date required to implement the change; and indicates concurrence/nonconcurrence of each CCB member.

5.4 Configuration Documentation. The program/project-specific technical documentation (drawings, parts lists, specifications, standards, interface control documents/drawings, and documents invoked therein) that identifies and defines the item's functional and physical characteristics. The configuration documentation is developed, approved, and maintained through three distinct, evolutionary, increasing levels of detail. The three levels of configuration documentation are: the functional configuration documentation, the development configuration documentation, and the product configuration documentation.

5.5 Configuration Identification. Configuration identification includes the selection of CIs; the determination of the types of configuration documentation required for each CI; the issuance of numbers and other identifiers affixed to the CIs and to the technical documentation that defines the CI configuration, including internal and external interfaces; the release of CIs and their associated configuration documentation; and the establishment of configuration baselines for CIs.

5.6 Deviation. A specific written authorization, granted prior to the manufacture of an item, to depart from a particular requirement(s) of an item's current approved configuration for a specific number of units or a specified period of time.

5.7 Engineering Change Request (ECR). A proposed engineering change used by MSFC personnel to submit documentation for initial

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baselining or to process changes to the baseline for evaluation and disposition by the appropriate CCB.

5.8 Field Engineering Change (FEC). The method for proposing engineering changes at NASA using sites on equipment for which MSFC retains design responsibility and for which time is not adequate for preparation and processing of an engineering change.

5.9 Installation Notice Card (INC), MSFC Form 2490. A form used after CI delivery to update the CM system and to certify that a particular modification package or FEC has been installed, tested, verified, and accepted in accordance with its associated change modification instructions.

5.10 Modification (Mod) Instruction. Documentation that serves as step-by-step instructions for accomplishing the modification and to use as a checklist for modification kit completeness.

5.11 Modification (Mod) Kit. A package containing necessary released documentation, hardware, software, and modification instructions to incorporate an approved engineering change into delivered CIs.

5.12 Program Control Number (PCN). A unique number assigned to the first item of a change package which initiates a particular engineering change. The same number is assigned to all subsequent actions and documentation associated with that engineering change which, together with the initial engineering change document, is recognized as a change package.

5.13 Screening Group. The screening group may be formally established by the program/project or it may be informal. The screening group may include the systems engineer or designated representative, a representative from the program/project office, the CCB Secretariat, a contractor's representative if applicable, and other personnel as assigned by the program/project manager. The screening group shall function to review all changes for scheduling evaluations and presentations to the CCB.

5.14 Specification/Document Change Notice (SCN/DCN). A form used to propose, transmit, and record changes to a baselined specification or other document.

5.15 Waiver. A written authorization to accept an item after manufacture, or after being submitted for Government inspection or acceptance, that is found to depart from specified requirement(s), but nevertheless is considered suitable for use "as is" or after repair by an approved method.

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6. INSTRUCTIONS

The detailed instructions within this MWI provide information necessary to: (1) Establish the configuration control boards; (2) Process changes, deviations, and waivers; (3) Run the CCB and track to ensure that CCB decisions are disseminated for implementation; and (4) Follow up for closeout of all required actions.

The CCB secretariat will be responsible for the establishment and maintenance of project change files, called PCN files. As a minimum, the following information will be included:

- a. The change, ECR, ECP, CR, DAR, etc.
- b. CCBD or change evaluation (CE), whichever is appropriate
- c. Mandatory evaluator evaluations, if any
- d. Minutes of CCB meetings and actions assigned
- e. Closure data

The CCB secretariat will be responsible for the establishment and maintenance of project change status and accounting information in CPTAS in accordance with MSFC-MNL-1951.

NOTE: The program/project manager may be the systems engineer.

	<u>Actionee</u>	<u>Action</u>
6.1		ESTABLISH CONFIGURATION CONTROL BOARD CHARTER AND IDENTIFY MEMBERSHIP.
6.1.1	Program/Project Manager	Initiate establishment of appropriate Levels II, III, and IV CCBs.
6.1.1.1		Level II CCB at MSFC includes the following membership: <ol style="list-style-type: none"> a. Chairperson: Program manager or designated representative. b. Alternate Chairperson: As designated by the Program manager, usually the deputy manager. c. Secretariat: Assigned from the Configuration and Data Management Group. d. All Level III CCB chairpersons:

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alternates or designated
representatives.

e. Systems engineer or designated
representative.

f. S&MA representative.

g. Procurement Office representative
when the program has a prime or system
support contractor.

h. Other technical and programmatic
personnel as designated by the
program manager.

6.1.1.2

Level III CCB at MSFC includes the
following membership:

a. Chairperson: Project manager or
designated representative.

b. Alternate Chairperson: As
designated by the Project manager.

c. Secretariat: Assigned from the
Configuration and Data Management
Group.

d. Systems engineer or designated
representative.

e. S&MA representative.

f. Procurement Office representative
when the project has a prime or
system support contractor.

g. Other technical and programmatic
personnel as designated by the
project manager.

6.1.1.3

Level IV CCB at MSFC includes the
following membership:

a. Chairperson: As designated by
the program/project manager.

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b. Secretariat: Assigned from the Configuration and Data Management Group.

c. S&MA representative.

d. Representatives from the Engineering Directorate.

e. Other technical personnel as designated by the chairperson.

- | | | |
|---------|------------------|---|
| 6.1.2 | CCB Secretariat | Assist in obtaining CCB membership assignments. |
| 6.1.2.1 | | Generate letter identifying the assigned secretariat(s) and alternate(s) to applicable CCB. |
| 6.1.2.2 | | Coordinate primary and alternate CCB member assignments with all applicable organizations. |
| 6.1.2.3 | | Reserve appropriate codes from the release desk (project code, board code, effectivity code, PCN Code, and PD code). |
| 6.1.3 | Release Desk | Assign appropriate codes. |
| 6.1.4 | Systems Engineer | If Level IV CCB is authorized, establish the CCB and provide concurrence with final version before project manager approval. Generate documentation identifying Level IV CCB member(s) and engineer alternate(s) who will represent the organizations. Notify the release desk, in writing, of updates. |
| 6.1.5 | CCB Secretariat | Prepare the CCB charter(s) for signature by the appropriate manager with concurrence of affected organizations. The charter(s) will identify the following: |
| | | a. Program/project description. |

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b. CCB level.

c. CCB code.

d. Top assembly part number(s) and applicable responsibilities. The Effectivity Sheet, MSFC Form 4341, will be provided with the charter letter. Changes to approved MSFC Form 4341 require an ECR and CCBD approval authority.

e. Full name (i.e., Joe E. Jones) and organization of members and alternates.

- | | | |
|---------|---------------------------------|--|
| 6.1.6 | Program Manager | Sign charter letter(s) for Level II CCBs. |
| 6.1.7 | Project Manager | Sign charter letter for Level III and IV CCBs at MSFC. |
| 6.1.8 | CCB Secretariat | Distribute Levels II, III, and/or IV CCB charter letter(s) to affected organizations. |
| 6.1.8.1 | | Maintain CCB charter letters. |
| 6.2 | | PROCESSING CHANGES |
| 6.2.1 | | CHANGE INITIATION AND RECEIPT. |
| 6.2.1.1 | MSFC In-House | Identify the need for change to the office of primary design responsibility that generates the CR, ECR, or DAR (in accordance with MWI 8040.3) and transmit to applicable program/project CCB secretariat. |
| 6.2.1.2 | Non-MSFC
Changes | Receive CR, ECP, deviation, or waiver from external sources for processing (contractor, other NASA organizations, etc.). |
| 6.2.1.3 | Field
Engineering
Changes | Process per paragraph 6.6. |

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6.2.1.4 CCB Secretariat Perform the following activities:

- a. Check change package for accuracy, completeness, and compliance with procedures.
- b. Coordinate discrepancies with initiator and/or release desk to resolve any problems with change package.
- c. Retain original MSFC engineering documentation (i.e., drawings, documents, EPLs, DRLs, SCNs, DCNs, etc.) until CCB disposition.
- d. Assign PCN per ED43-026.
- e. Enter data into CPTAS.

6.2.2 CHANGE EVALUATION

6.2.2.1 CCB Secretariat Coordinate change with the screening group and CPE assigned by the CCB chairperson or designee.

6.2.2.2 Screening Group Identify mandatory evaluators and recommend CCB schedule.

6.2.2.3 CCB Secretariat Prepare transmittal correspondence that contains the following and distribute to CCB members and others needed to evaluate the change:

- a. Change (CR/ECR/ECP/DAR/etc.).
- b. PCN.
- c. Planned CCB date and location.
- d. Date evaluations required.
- e. Distribution list.

6.2.2.4 Evaluators Complete evaluation and submit it to CCB secretariat and CPE within specified schedule.

6.2.2.5 CCB Secretariat Maintain status of CEs.

6.2.2.6 CPE Prepare CCB presentation containing, as a minimum, the following:

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a. Change proposal (CR/ECR/ECP/DAR/ etc.) number, title, and PCN.

b. Summary description of change rationale for change.

c. Change evaluators' name and organization.

d. Consolidated summary of all evaluations.

e. Consolidated summary of technical and programmatic recommendation.

f. Provide planned recommendation to CCB Secretariat.

6.3 CONFIGURATION CONTROL BOARD AGENDA

6.3.1 CCB Secretariat Prepare agenda listing the following information:

a. CCB date and location.

b. Identify each CPE.

c. Listing of changes to be presented to the CCB by PCN and ECP/ECR/CR/DAR number, title, and effectivity, if applicable.

d. A listing of outstanding actions scheduled for the CCB meeting.

6.3.2 CCB Chairperson Review proposed agenda and provide input to CCB secretariat identifying any required changes or acceptability of the draft.

6.3.3 CCB Secretariat Finalize agenda and distribute to CCB members, CPEs, and others needed to support the CCB.

6.3.4 Prepare the CCBD. The CCBD will contain the consolidated and coordinated change evaluation data

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provided by the CPE. The CCBD will include all actions, actionees, and suspense date(s).

- 6.3.5 CPE Prepare presentation material for CCB meeting.
- 6.3.6 CCB Secretariat Provide updated copies of agenda at CCB meeting, as required, to address any changes to the original agenda.
- 6.4 CONFIGURATION CONTROL BOARD OPERATIONS
- 6.4.1 CCB Secretariat Identify any updates or changes to sequence of CCB agenda items from the previously distributed CCB agenda and CCBD. Introduce initial agenda item and the responsible change package engineer (CPE).
- 6.4.2 Change Package Engineer Present presentation package for the change.
- 6.4.3 CCB Chairperson Disposition (approved as written, approved with changes, disapproved) change on a CCBD or Level II CE (for submission to higher-level CCB).
- 6.4.4 CCB Secretariat Provide official change package and pretyped CCBD or Level II CE (for submission to higher level CCBs) for signature.
- 6.4.5 CCB Members Initial beside typed name and check concurrence or nonconcurrence block on CCBD or on Level II CE concurrence sheet. Initial of CCB member indicates that the action(s) has been coordinated with appropriate elements of the CCB member's respective organization. If nonconcurrence is checked, written rationale will be provided.
- 6.4.6 CCB Chairperson Sign CCBD or Level II CE and verify accurate and complete documentation of CCB actions.

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- 6.4.7 CCB Secretariat If required, revise the CCBD or Level II CE and obtain required signatures outside CCB meeting.
- 6.4.8 CCB Secretariat Retain official change package and original CCBD or Level II CE.
- 6.4.8.1 Record all activities at CCB for generation of subsequent CCB minutes.
- 6.5 CONFIGURATION CONTROL BOARD MINUTES AND CLOSEOUT
- 6.5.1 CCB Secretariat Prepare minutes of each CCB meeting with the following information:
- a. Date and location.
- b. List of attendees.
- c. List of all agenda items and their disposition (e.g., Approved, Approved with Change(s), Disapproved).
- d. Action items assigned, including actionees and suspense date directed by the CCB.
- 6.5.1.1 Distribute minutes to actionees, CCB members, CPEs, and others, as required.
- 6.5.2 CCB Members, CPE and Actionees Coordinate with CCB Secretariat for action closure or request for reschedule as related to non-CCBD-directed actions.
- 6.5.3 CCB Secretariat Track non-CCBD change-related actions until closure.
- 6.5.3.1 File the minutes.
- 6.5.3.2 Forward original ECR/DAR packages to release desk.
- 6.5.4 Release Desk Process ECR/DAR packages in accordance with MSFC-STD-555. Enter

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information into the Integrated Configuration Management System (ICMS), forward documentation to Repository, and send documentation to CCB Secretariat for closure of action.

6.5.5 Repository Distribute copies of documentation per approved distribution list. File and retain documentation.

6.5.6 Change Initiators/Actionees Implement CCBD actions and provide closure data for CCBD actions.

6.5.7 CCB Secretariat Monitor closure actions, update CPTAS to record closure actions, provide action item status to project management, and maintain PCN files.

6.6 FIELD ENGINEERING CHANGES

6.6.1 Using Site Activity Identify the need for the FEC and the proposed implementation and pre-coordinate with the MSFC onsite representative or MSFC Systems Engineer.

6.6.1.1 MSFC Onsite Representative (when so designated by the project) Coordinate the FEC issue via telephone/e-mail with applicable MSFC System Engineer.

6.6.2 MSFC Systems Engineer (this may be the project manager) Coordinate with the applicable design activity and evaluate the need for the FEC and the proposed implementation.

6.6.2.1 Advise the project manager of acceptability. Obtain project manager's concurrence to initiate FEC.

6.6.2.2 Notify Using Site Activity either directly or through the MSFC onsite representative of acceptability.

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- 6.6.3 Using Site Activity Generate FEC and fax/e-mail FEC to MSFC System Engineer for concurrence.
- 6.6.4 MSFC System Engineer Coordinate FEC with design activity and other MSFC evaluators.
- 6.6.5 MSFC CCB Secretariat When requested by the system engineer, provide administrative assistance in the processing of the FEC.
- 6.6.6 Design Activity and other MSFC Evaluators Review FEC and concur with proposed solution for implementation.
- 6.6.7 MSFC System Engineer Consolidate FEC evaluation and advise project manager.
- 6.6.8 MSFC Project Manager (or System Engineer) Sign FEC. (For projects with delegated approval authority, the MSFC onsite representative would approve changes as authorized by the project manager.)
- 6.6.8.1 Identify if Level II approval is required.
- 6.6.8.2 Issue instructions for the followup ECR or ECP for design baseline changes. Note: It is highly desirable that each FEC have a corresponding design drawing change (EO for in-house projects, and the equivalent for contracted projects).
- 6.6.9 MSFC System Engineer Fax/e-mail approved FEC to Using Site Activity. (The systems engineer may request this done by the MSFC CCB Secretariat.) Note: The MSFC System Engineer shall identify (with support from MSFC CCB Secretariat and in coordination with the using site) the records which the Using Site Activity needs to supply (see 6.6.12).
- 6.6.9.1 Assure MSFC CCB Secretariat receives a copy of the FEC.

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- 6.6.10 MSFC CCB Secretariat Assign PCN per ED43-026 and file approved FEC.
- 6.6.10.1 Track 6.6.8.2 action instructions.
- 6.6.10.2 Enter data into CPTAS.
- 6.6.11 Using Site Activity Implement approved FEC. The Using Site CM system is responsible to track, status, provide closure of the FEC, and to maintain the records.
- 6.6.11.1 E-mail/Fax MSFC System Engineer or MSFC CCB Secretariat that FEC installation was accomplished and provide the agreed to records to the MSFC System Engineer or the MSFC CCB Secretariat.
- 6.6.12 MSFC System Engineer
- If required, define additional data/records/information on the FEC needed to be included in the MSFC PCN record file, and notify the Using Site Activity. Records involved with installation verification typically consist of the following:
- Date and location of installation
 - Part number of the item
 - Serial number of the item
 - Work order number if applicable
 - Name, address, and telephone number of the person responsible for the installation
 - Date and location of verification
 - Name, address, and telephone number of the person responsible for the verification
 - Name, address, and telephone number of the Government inspector if applicable
 - Any additional remarks as required
- MSFC Form 2490 is available for use but is not required.
- Notify the MSFC CCB Secretariat of FEC installation verification and

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- 6.6.12.1 provide the data to be entered into the PCN file.
- 6.6.13 MSFC CCB Secretariat Incorporate data into PCN file and update CPTAS.
- 6.6.14 Design Activity Per instructions of 6.6.8.2, generate followup ECR including EO or ECP if out-of-house project and process per paragraph 6.2.1.4 and subsequent.
- 6.6.15 Design Activity or MSFC CCB Secretariat Note: As an alternate, the MSFC System Engineer Notify Using Site CM of design baseline update and provide updated design data to Using Site CM.
- 6.6.16 MSFC CCB Secretariat Update PCN files and CPTAS.
- 6.7 MODIFICATION (MOD) KITS AND INSTRUCTION
- 6.7.1 Using Site or Design Activity Identify need for retrofit after receipt/delivery of CI(s).
- 6.7.2 Design Activity Generate change request.
- 6.7.3 CCB Secretariat See paragraph 6.2 for processing change.
- 6.7.4 CCB See paragraph 6.4 for CCB operation.
- 6.7.5 CCB Secretariat See paragraphs 6.3.4, 6.4.7, and 6.4.8 for CCBD processing.
- 6.7.6 Design Activity Generate mod kit documentation package including installation instructions and validation requirements.
- 6.7.6.1 Generate the mod instructions to include the following items:
- Title
 - Mod instruction number

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- c. Authorization
- d. Date
- e. Mod kit proofed
- f. Where work will be accomplished
- g. Installation sequence
- h. Spares affected
- i. Manuals affected
- j. Safety considerations
- k. Purpose of mod instruction
- l. Effectivity
- m. Parts/materials/documentation required
- n. Instructions for accomplishing modification
- o. Nameplate
- p. Special packaging/handling instructions
- q. Special tools, safety equipment, or test equipment
- r. Disposition of removed parts
- s. Estimated man-hours required
- t. Validation requirements
- u. Prepared by
- v. Inspected by
- w. Software requirements

A copy of the mod instruction will be provided for each serialized CI.

6.7.6.2 If validation requirements are not available for inclusion into the initial mod instructions, the validation requirements will be generated and shipped after delivery of initial mod kit package.

6.7.7 MSFC Property Management and Transportation Ship mod kit software/hardware and documentation package. Shipment of shortages and subsequent partial mod kits will be accomplished as required.

6.7.8 Using Site Activity Receive mod kit package.

6.7.8.1 Revise applicable field installation and operation documentation, as required.

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- 6.7.8.2 Implement retrofit/modifications per mod instructions.
- 6.7.8.3 Complete kit installation and verification information and forward to the project configuration management secretariat. MSFC Form 2490, Installation Notice Card, or the using-site format is acceptable; however, the data items listed below are mandatory:
- a. Mod kit number if applicable
 - b. ECR/ECP number that caused the modification
 - c. Part number of the new identifier if the mod caused a part number change to the configuration item
 - d. Date and location of installation
 - e. Part number of the item
 - f. Serial number of the item
 - g. Work order number if applicable
 - h. Name, address, and telephone number of the person responsible for the installation
 - i. Date and location of verification
 - j. Name, address, and telephone number of the person responsible for the verification
 - k. Name, address, and telephone number of the Government inspector if applicable
 - l. Any additional remarks as required
- 6.7.8.4 Transmit mod kit installation and verification information.
- 6.7.9 CCB Secretariat Receive mod kit installation and verification information.
- 6.7.10 Design Activity Generate revised ECR, as required, and process beginning with step 6.2.1.

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7. NOTES

None

8. SAFETY PRECAUTIONS AND WARNING NOTES

None

9. RECORDS

Charter letters, changes, and related data processed in accordance with this document shall be maintained in accordance with MPG 1440.2, "MSFC Records Management Program," and NPG 1441.1, "NASA Records Retention Schedules," Schedule 8/9. The CCB Secretariat or designee will serve as the records custodian.

10. PERSONNEL TRAINING AND CERTIFICATION

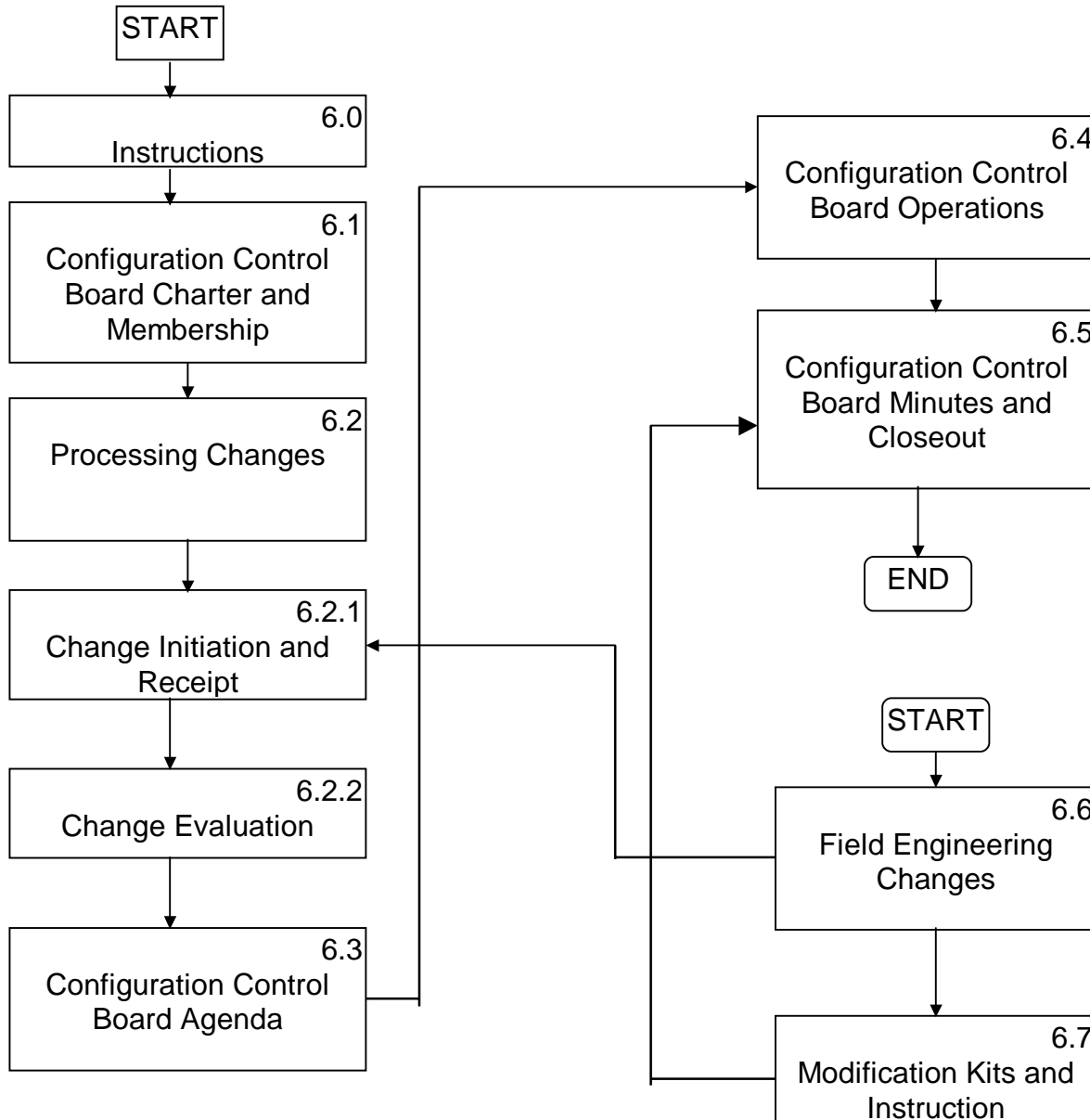
None

11. FLOW DIAGRAM

See following page.

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CONFIGURATION CONTROL FLOW



12. CANCELLATION

MWI 8040.2B dated May 26, 2000

Original Signed by
Axel Roth for

A. G. Stephenson
Director